

IN THE CLAIMS:

1. (Currently Amended) A device for generating a random signal, characterized in that comprising:

it includes a transient-state electronic circuit having an output terminal and furthermore means (112) to control the operation and/or the shutdown for controlling warming and cooling of said circuit in order to generate a random signal at said circuit's output terminal.

2. (Currently Amended) Device as claimed in The device of claim 1, characterized in that wherein the circuit comprises semiconducting logic elements.

3. (Currently Amended) Device as claimed in The device of claim 2, characterized in that it wherein said transient-state circuit comprises an oscillator circuit including comprising semiconducting elements and means for controlling operation and/or shutdown warming and cooling of said oscillator circuit.

4. (Currently Amended) Device as claimed in The device of claim 3, characterized in that the output of the oscillator circuit (11) is looped (113) to its input wherein said oscillator circuit comprises an oscillator input terminal connected to an oscillator output terminal for looping an output signal from the oscillator output terminal to the oscillator input terminal.

5. (Currently Amended) Device as claimed in The device of claim 4, characterized in that the oscillator circuit comprises means constituting the inverter (111) and inverting at its output (111a) the signal applied to its input (111b) and further includes a loop between its input and output wherein said oscillator circuit comprises an inverter means having an inverter input terminal connected by a circuit to an inverter output terminal, said inverting means for inverting a signal applied to said inverter input terminal and outputting said inverted signal at said inverter output terminal, wherein said inverter means comprises a switch located in said circuit, said switch for breaking the circuit between the inverter input and output terminals.

6. (Currently Amended) Device as claimed in The device of claim 5, characterized in that means controlling the operation or the shutdown of the oscillator circuit include means (112) acting as switches and situated in the loop between the output of the inverter constituting means and the oscillator circuit output wherein said means for controlling warming and cooling of the oscillator circuit comprises switching means for breaking the circuit connecting the inverter output terminal to the oscillator output terminal.

7. (Currently Amended) Device as claimed in The device of claim 5, characterized in that the means constituting the inverter comprise a plurality in the form of an odd number of inverters (111) wherein said inverter means comprises an odd number plurality of inverter means.

8. (Currently Amended) A device comprising logic circuit(s) to generate a random signal, characterized in that said device comprises several sub-assemblies (11a, 11b) claimed in one of the above claims for the purpose of continuously generating said random signal, furthermore elements (21, 22) to consecutive and alternatingly control the operation and the

~~shutdown of the transient-state circuit of each of said elements, and also an element (20) to AND, OR or XOR the outputs from the different elements~~ at least one logic circuit for generating a random signal, the device comprising:

a plurality of random signal generating devices each comprising a transient-state electronic circuit comprising semiconductor logic devices and having an output terminal and control means for controlling warming and cooling of said transient-state circuit, said plurality of devices for continuously generating a random signal;

control elements for consecutively and alternatingly controlling warming and cooling of the transient-state circuit of each of said random signal generating device; and

a combining element for combining output signals from said random signal generating devices.

9. (Currently Amended) Device as claimed in The device of claim 8, characterized in that the ANDing, ORing or XORing elements apply to the outputs of the different elements a gate of the EXCLUSIVE OR type wherein said combining element comprises an EXCLUSIVE OR gate.

10. (Currently Amended) Device as claimed in The device of claim 9, characterized in that wherein the control means include for controlling the transient-state circuit comprises at least one counter (21) receiving at its input the output from the elements combining in for performing a countdown sequence, and having an input terminal for receiving an output signal from the combining element, which is for in turn ANDing, ORing or XORing the outputs of the different elements, further including means output signals from the random signal generating devices, said device further comprising means for controlling the operation of the shutdown of the semiconducting elements of said plurality of random signal generating devices as a function of the counter's countdown sequence.

11. (Currently Amended) Device The device as claimed in
claim 1, characterized in that it is incorporated into in
combination with a specific integrated circuit or into a
programmable integrated circuit.